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EXAMINER	
TON, ANTHONY T	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,124	PUDAS ET AL.	
	Examiner	Art Unit	
	Anthony T Ton	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

PHIRIN SAM
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claims 1-4** and **10** are objected to because of the following informalities:

a) **In claim 1**: limitation "**a** CID" in line 5 is improper because this limitation was already recited to once in line 3.

Examiner suggests changing this limitation to "**the** CID" to be more specific.

b) **In claim 1**: the limitation "**bandwidth**" in line 7 is improper because this limitation was already recited to once in line 5.

Examiner suggests changing this limitation to "**the** bandwidth" to be more specific.

c) **In claim 2**: the limitation "**bandwidth**" in line 2 is improper because this limitation was already recited to once in the line 5 of the claim 1.

Examiner suggests changing this limitation to "**the** bandwidth" to be more specific.

d) **In claim 3**: the limitation "**an** available CID" in **line 6** and **line 8** is improper because this limitation was already recited to once in line 4.

Examiner suggests changing this limitation to "**the** available CID" to be more specific.

e) **In claim 3**: the limitation "**bandwidth**" in **line 10** and **line 12** is improper because this limitation was already recited to once in line 8.

Examiner suggests changing this limitation to "**the** bandwidth" to be more specific.

f) **In claim 4**: the limitation "**bandwidth**" in line 2 is improper because this limitation was already recited to once in the line 8 of the claim 3.

Examiner suggests changing this limitation to "**the** bandwidth" to be more specific.

Appropriate correction is required.

g) **In claim 10**: the limitation "**the** bandwidth" in line 2 is improper because there is no antecedent basis for this limitation.

Examiner suggests changing this limitation to "bandwidth".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 2, 6** and **7** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Subbiah* (US Patent No. 6,717,948) in view of *Caves et al.* (US Patent No. 6,665,300) hereinafter referred to as *Caves*.

a) **In Regarding to Claim 1**: *Subbiah* disclosed a method for optimizing network resources in an ATM network comprising the steps of:

(b) determining if bandwidth is available on a direct VCC *(see col.3 lines 15-22; and col.5 lines 13-23: the same ATM VCC (hence, direct VCC since it is only one VCC))*; and

(c) if the bandwidth is available on the direct VCC, then setting up an AAL2 connection on the direct VCC *(see col.3 lines 7-12 and 48-53)*.

Subbiah fails to explicitly disclose the step (a) of the method: determining whether a channel identifier (CID) is available on a direct VCC in response to a connection request.

Caves explicitly disclosed such determining whether a CID is available on a direct VCC in response to a connection request *(see Fig.3: the step of CID free?)*.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such determining whether a CID is available on a direct VCC in response to a connection request, as taught by *Caves* and *Subbiah*, so that an available VCC can be assigned to an end user in a purpose of an appropriate connection setup. The motivation for doing so would have been to avoid collisions caused by simultaneous allocation of a same channel identifier to two AAL2 connections over an ATM VCC between a first and second nodes in asynchronous networks *(see Caves: col.3 lines 17-20).* Thus, it would have been obvious to combine *Caves* and *Subbiah* in the invention as specified in the claim.

b) **In Regarding to Claim 2**: *Subbiah* further disclosed the method further comprising the step of: (b1) setting up a new direct VCC to a destination if bandwidth is not available on the direct VCC *(see col.7 lines 49-51 and col.8 lines 9-12: reject the data connection through AAL2 (old direct VCC) and admit through AAL5 (a new direct VCC)).*

c) **In Regarding to Claims 6** and **7**: the claimed subject matters of a communication network of these claims are the same as that of the method in claims 1 and 2 respectively, **except for** the communication network comprising: a plurality of ATM nodes.

However, *Subbiah* also disclosed such a plurality of ATM nodes *(see Fig.1: nodes 110-116 and Figs.3 and 6: n speech users and n data users).*

4. **Claims 3-5** and **8-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Subbiah* (US Patent No. 6,717,948) in view of *Caves et al.* (US Patent No. 6,665,300) as applied to claims 1, 2, 6 and 7 above, and further in view of the *Admitted Prior Art* as shown in Figs.1 and 2, hereinafter referred to as *the Admitted Prior Art.*

a) **In Regarding to Claim 3**: *Subbiah* disclosed a method for optimizing network resources in an ATM network, wherein the ATM network is formed from a plurality of interconnected network nodes, the method comprising the steps of:

(c) determining if bandwidth is available on a VCC *(see the step (b) of the claim 1 that was described above)*;

(d) if the VCC does not have the bandwidth available, then modifying the bandwidth on the VCC *(see col.7 lines 13-42: The inductive learning 712 is an iterative process by the knowledge-based connection apparatus 700 updates its prior knowledge 720, i.e., its knowledge of traffic parameters in an AAL2 connection ... resource allocated for speech users, for example, Bandwidth, QoS etc; and see Fig.7: a loop from step 730 to steps 720 and 712 (hence the Bandwidth of the VCC is modified, for example, voice or video data in the AAL2 is compressed);* and

(e) if the bandwidth is available on the VCC, then setting up an AAL2 connection on the VCC *(as the step (c) of the claim 1 described above)*.

Subbiah fails to explicitly disclose the step (a) of the method: determining whether a channel identifier (CID) is available on a VCC in response to a connection request.

Caves explicitly disclosed such determining whether a CID is available on a VCC in response to a connection request *(see Fig.3: the step of CID free?)*.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such determining whether a CID is available on a direct VCC in response to a connection request, as taught by *Caves* and *Subbiah*, so that an available VCC can be assigned to an end user in a purpose of an appropriate connection setup. The motivation for doing so would

have been to avoid collisions caused by simultaneous allocation of a same channel identifier to two AAL2 connections over an ATM VCC between a first and second nodes in asynchronous networks *(see Caves: col.3 lines 17-20).* Thus, it would have been obvious to combine *Caves* and *Subbiah* in the invention as specified in the claim;

Subbiah also fails to explicitly disclose the step (b) of the method: if the VCC does not have an available CID, then checking all existing VCCs for an available CID.

Caves explicitly disclosed such if the VCC does not have an available CID, then checking all existing VCCs for an available CID *(see col.6 lines 58-60 and Fig.3: the step of CID Free?").*

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such if the VCC does not have an available CID, then checking all existing VCCs for an available CID, as taught by *Caves* and *Subbiah*, so that a VCC an available VCC can be assigned to an end user in a purpose of an appropriate connection setup. The motivation for doing so would have been to dynamic control available CID values for assignment on ALL2 VCCs *(see Caves: col.4 lines 24-30).* Thus, it would have been obvious to combine *Caves* and *Subbiah* in the invention as specified in the claim; and

In addition, both *Subbiah* and *Caves* fail to explicitly disclose the VCC is an indirect VCC.

The Admitted Prior Art has explicitly disclosed such an indirect VCC *(see Figs.1 and 2: Logical AAL2 connections 121 – 124).*

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such an indirect VCC, as taught by *the Admitted Prior Art* throughout the speech and

the best effort data traffic of *Subbiah*, so that any different available VCC can be established between source and destination in an ATM network. The motivation for doing so would have been to utilize different standard VCCs in an ATM network to transmit ATM cells in a second or third VCC if a first VCC is busy *(see Subbiah col.2 lines 27-38)*. Therefore, it would have been obvious to combine *the Admitted Prior Art* and *Subbiah* in the invention as specified in the claim.

b) **In Regarding to Claim 4**: *Subbiah* further disclosed the method further comprising the steps of: (d1) setting up at least one new VCC to a destination if bandwidth is not available on any VCCs *(see col.7 lines 49-51 and col.8 lines 9-12)*.

c) **In Regarding to Claim 5**: *Subbiah* further disclosed the at least one new indirect VCC is setup according to a routing table *(see col.1 lines 40-60: hop-by-hop routing mechanism between AAL2 end systems (hence, it is inherently there is a routing table existed in the Subbiah's))*.

d) **In Regarding to Claims 8** and **9**: the claimed subject matters of a communication network of these claims are the same as that of the method in claims 3 and 4 respectively, **except for** the communication network comprising:

a plurality of ATM nodes; and

a plurality of indirect virtual connection channels (VCC), wherein each indirect VCC connects one of the plurality of ATM nodes to a different one of the plurality of ATM nodes.

Subbiah further disclosed such a plurality of ATM nodes *(see Fig.1: nodes 110-116 and Figs.3 and 6: n speech users and n data users)*; and

Subbiah fails to explicitly disclose such a plurality of indirect VCC, wherein each indirect VCC connects one of the plurality of ATM nodes to a different one of the plurality of ATM nodes.

The Admitted Prior explicitly disclosed such a plurality of indirect VCC, wherein each indirect VCC connects one of the plurality of ATM nodes to a different one of the plurality of ATM nodes *(see Fig.1: ATM nodes 101-104, and VCCs 121-124).*

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a plurality of indirect VCC and ATM nodes, as taught by *the Admitted Prior Art* with *Subbiah*, so that any available VCC in an ATM network can be utilized to establish between a source node and a destination node. The motivation for doing so would have been to provide an suitable connection setup between two end users via an AAL2 switch in ATM networks in a purpose of avoiding collision and make *Subbiah* more reliable. Therefore, it would have been obvious to combine *the Admitted Prior Art* and *Subbiah* in the invention as specified in the claim.

e) In Regarding to Claims 10 and **11**: all claimed subject matters of these claims have been covered by the claims 8 and 9 respectively, in an ATM node as taught by these claims. Therefore, the rejections to the claims 8 and 9 would also apply to these claims 10 and 11.

Response to Remarks/Arguments

5. Applicant's arguments filed on 10/27/2004 have been fully considered but they are not persuasive. Claims 1-11, which remain pending in the subject application, have been respectfully reconsidered. However, all of these claims are still rejected as the same old ground of the rejection as described above.

With respect to claim 1: Examiner carefully reconsidered the subject matters of the claim. Examiner respectfully agrees with the Applicant that *Subbiah* cannot identify any teaching therein of "determining whether a channel identifier (CID) is available on a direct virtual connection channel (VCC) in response to a connection request," as recited in step (a) of the claim. However, *Caves* explicitly disclosed such determining whether a CID is available on a direct VCC in response to a connection request *(see Fig.3: the step of "CID free?").*

Examiner respectfully disagrees with the Applicant that *Caves* suffers from the same deficiency of *Subbiah,* and *Caves* fails to disclose a process in which it is determined whether a CID is available because *Caves* clearly discloses such a process for determining whether or not a CID is available *(see steps "CID Free?" and "This CID Free?" as disclosed in the flow charts of Fig.3 and Fig.4, respectively).* Therefore, it would be obvious to a person of ordinary skill in the art to combine such determining whether a CID is available on a direct VCC in response to a connection request, as taught by *Caves* and *Subbiah.*

With respect to claims 6 and **7**: *Caves* and *Subbiah* explicitly disclosed the limitations of the claims 1 and 2 as described above, and therefore, the claims 6 and 7 are also rejected over *Caves* and *Subbiah.*

With respect to claim 3: Examiner carefully re-asserts the claimed limitations of this claim as described in the section 4 of this Office Action. Examiner respectfully agrees with the Applicant that both *Caves* and *Subbiah* did not explicitly mention about any indirect VCCs. However, in Figs.1 and 2 of *the Admitted Prior Art* have explicitly disclosed such indirect VCCs.

As with explanation of the claim 1, Examiner respectfully agrees with the Applicant that *Subbiah* cannot identify any teaching therein of "determining whether a CID is available on an

indirect VCC in response to a connection request," as recited in step (a) of the claim 3. However, *Caves* explicitly disclosed such determining whether a CID is available on a VCC in response to a connection request *(see Fig.3: the step of "CID free?")*, and

the Admitted Prior Art has explicitly disclosed such indirect VCCs as described above.

In addition, *Subbiah* explicitly discloses the claimed limitation "if the bandwidth is available on the direct VCC, then setting up an AAL2 connection on the direct VCC," *(see col.3 lines 7-12 and 48-53).*

It is therefore also believed that all claims depending therefrom cannot be patentable over *Subbiah, Caves* and *the Admitted Prior Art.*

For the reasons above, the claims 1-11 are unpatentable and being still rejected as the same old ground of the rejection.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony T Ton** whose telephone number is **571-272-3076**. The examiner can normally be reached on M-F: 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chau Nguyen** can be reached on **571-272-3126**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

by: _____
Anthony T. Ton
Patent Examiner
March 02, 2005

PHIRIN SAM
PRIMARY EXAMINER